The Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER)

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ASTER is a facility instrument provided for the EOS AM-1 platform by the Japanese Ministry of International Trade and Industry (MITI). It will provide high spatial resolution (15-90 m), multispectral images in the VNIR, SWIR, and TIR wavelength regions. In addition, stereo data will bc acquired at 15 m resolution. ASTER data products will include spectral radiance and brightness temperature at the sensor, and surface values of spectral radiance, spectral reflectance, temperature and spectral cmissivity, along with polar cloud/ice maps and digital elevation models.

ASTER research will utilize combinations of VNIR, SWIR, and TIR data for cloud studies, surface mapping, soil and geologic studies, volcano monitoring, investigations of land usc patterns and vegetation studies, and monitoring of glaciers and coral reefs.

The MODIS and MISR instruments on the same platform will monitor many of the same variables globally on a daily basis. ASTER, with its higher spatial resolution but only 16 day revisit cycle, will provide data at a scale that can bc directly related to physical processes. The.sc data will bridge the gap between field observations and data acquired by MODIS and MISR, and between process models and climate and/or forecast models. **ASTER** data will also be used for long-term monitoring of local and regional changes on the Earth's surface, which either lead to or arc in response to global climate change, e.g., land use, deforestation, dcscrtification, lake and playa water level changes, and volcanic processes.

1. 1995 Fall Meeting

2. 01315498

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5. (a) A07 Science and the first Eos platform, Eos-AM (Joint with OS)
(b)
(c) Remote Sensing

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8. Invoice $60.00 to attached PO #000538652 at Jet Propulsion Laboratory, Accounts Payable, MS 511-305, Pasadena, CA, 91109

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11. No